

## SEQUENCE LISTING

<110> WENGEL, JESPER  
NIELSEN, POUL

<120> OLIGONUCLEOTIDE ANALOGUES

<130> 49165 (71994)

<140> 09/152,059

<141> 1998-09-11

<150> 60/058,541

<151> 1997-09-12

<150> 60/068,293

<151> 1997-12-19

<150> 60/071,682

<151> 1998-01-16

<150> 60/076,591

<151> 1998-03-03

<150> 60/083,507

<151> 1998-04-29

<150> 60/088,309

<151> 1998-06-05

<150> 60/094,355

<151> 1998-07-28

<160> 146

<170> PatentIn Ver. 2.1

<210> 1

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (1)..(15)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 1

tgtgtgaaat tgttat

<210> 2

<211> 13

RECEIVED  
TECH CENTER 1600/2900  
01 NOV -6 PM 3:24

G27

<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(12)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 2  
ataaagtgtgta aag

13

<210> 3  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Probe

<400> 3  
ggtgggtttgt ttg

13

<210> 4  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 4  
ggtgggtttgt ttg

13

<210> 5  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(12)  
<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 5

ggtgggtttgt ttg

13

<210> 6

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 6

ggtgggtttgt ttg

13

<210> 7

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (7)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 7

ggtgggtttgt ttg

13

<210> 8

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (6)..(9)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 8

ggtgggtttgt ttg

13

<210> 9  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(12)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 9  
ggtggtttgt ttg

13

<210> 10  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 10  
tgcattgtgt ggaga

15

<210> 11  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
nucleic acid sequence

<400> 11  
gcatgtgctg gagat

15

<210> 12  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (5)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (10)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 12  
tgcattgtgct ggaga

15

<210> 13  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (15)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 13  
gcattgtgctg gagat

15

<210> 14  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 14  
tgcattgtgct ggaga

15

<210> 15  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 15  
tgcattgtgct ggaga

15

<210> 16  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (10)..(24)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 16  
atcggtccat ctccagcaca tgca

24

<210> 17  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (10)..(24)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 17  
gactagttct ctccagcaca tgca

24

<210> 18  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (10)..(24)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 18  
ctgatcggtt ctccagcaca tgca

24

<210> 19  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (10)..(24)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 19  
 ctgatcaagt ctccagcaca tgca

24

<210> 20  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 20  
 gcatgtgctg gagat

15

<210> 21  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (15)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 21  
 gcatgtgctg gagat

15

<210> 22  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 22  
acgtacacga cctctacctt gcta 24

<210> 23  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 23  
aacagctatg accatg 16

<210> 24  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 24  
gtaaaacgac ggccagt 17

<210> 25  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 25  
gataggtgcc tcaactgat 18

<210> 26  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 26  
gtcgttcgct ccaagctg 18

<210> 27  
<211> 16  
<212> DNA  
<213> Artificial Sequence



<220>  
 <223> Description of Artificial Sequence: Probe

<400> 27  
 atgcctgcag gtcgac

16

<210> 28  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 28  
 ggtggtttgt ttg

13

<210> 29  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(12)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 29  
 ggtggtttgt ttg

13

<210> 30  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(12)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: Probe

<400> 30  
 ggtggtttgt ttg

13

<210> 31  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<400> 31

ggtgggtttgt ttg

13

<210> 32

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Probe

<220>

<221> modified\_base

<222> (1)..(12)

<223> LNA monomer

<400> 32

ggtgggtttgt ttg

13

<210> 33

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 33

ccagctctca gtagtttagt aca

23

<210> 34

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 34

gtagagcttt ctggtatgac aca

23

<210> 35

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 35

taagtcacag acgtatctca gac

23

<210> 36  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 36  
 ctctgtttca gacatgaact gct

23

<210> 37  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 37  
 ttccacagca caa

13

<210> 38  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>

<221> modified\_base  
 <222> (6)..(9)  
 <223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 38  
 ttccacagca caa

13

<210> 39  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>

<221> modified\_base  
 <222> (1)..(12)  
 <223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 39  
ttccacagca caa

13

<210> 40  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 40  
agagccgata aca

13

<210> 41  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 41  
agagccgata aca

13

<210> 42  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(12)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 42  
agagccgata aca

13

<210> 43  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (6)..(9)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 43  
 ggtgggtttgt ttg

13

<210> 44  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 44  
 ggtgggtttgt ttg

13

<210> 45  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 45  
 aaaaatcgac gctcaagtca gaaaagcatc tcacaaacaa acaaaccacc

50

<210> 46  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<220>  
 <221> modified\_base  
 <222> (6)..(9)  
 <223> LNA monomer

<400> 46  
 ggtgggtttgt ttg

13

<210> 47  
 <211> 13

<212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (6)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 47  
 ggtgggtttgt ttg

13

<210> 48  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 48  
 ggtgggtttgt ttg

13

<210> 49  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 49  
 gtgggttcgct ccaagctg

18

<210> 50  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 50  
 cagcagtcga cagag

15

<210> 51  
 <211> 15  
 <212> DNA  
 <213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 51  
cagcagtcga cagag

15

<210> 52  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 52  
ctctgtcgaa tgctg

15

<210> 53  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 53  
tgcatgtgct ggaga

15

<210> 54  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 54  
atcgttccat ctccagcaca tgca

24

<210> 55  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base

<222> (6)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 55  
 atcgttccat ctccagcaca tgca 24

<210> 56  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 56  
 ttaacgtagg tgctggactt gtcgctgttg tactt 35

<210> 57  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(15)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 57  
 tgtgtgaaat tgttat 16

<210> 58  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(12)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 58  
 ataaagtgta aag 13



<210> 59  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(15)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 59  
 tgtgtgaaat tgttat

16

<210> 60  
 <211> 13  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(12)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 60  
 ataaagtgtgta aag

13

<210> 61  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(15)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 61  
 tgcctgcagg tcgact

16

<210> 62  
 <211> 16

<212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 62

tgctgcagg tcgact

16

<210> 63

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (1)..(15)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 63

tgtgtgaaat tgttat

16

<210> 64

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (1)..(12)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 64

ataaagtgta aag

13

<210> 65

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (7)

<223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 65  
 tttttttttt tttt

14

<210> 66  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (7)..(8)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 66  
 tttttttttt tttt

14

<210> 67  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (6)..(9)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 67  
 tttttttttt tttt

14

<210> 68  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> LNA monomer

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (11)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 68  
tttttttttt tttt

14

<210> 69  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 69  
tttttttttt

10

<210> 70  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 70  
tttttttttt tttttt

16

<210> 71  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 71  
ggtggtttgt ttg 13

<210> 72  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 72  
caaacaaacc aca 13

<210> 73  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 73  
caaacaaacc aca 13

<210> 74  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 74  
ggtggtttgt ttg 13

<210> 75  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 75  
caaacaaacc aca

13

<210> 76  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 76  
caaacaaacc aca

13

<210> 77  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(12)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 77  
ggtggtttgt ttg

13

<210> 78  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 78  
caaacaaacc aca

13

<210> 79  
<211> 13  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 79  
 caaacaacc aca

13

<210> 80  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 80  
 tttttttttt tttt

14

<210> 81  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 81  
 aaaaaaaaaa aaaa

14

<210> 82  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 82  
 aaaaaaaaaa aaaa

14

<210> 83  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 83  
tttttttttt tttt 14

<210> 84  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 84  
aaaaaaaaaa aaaa 14

<210> 85  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 85  
aaaaaaaaaa aaaa 14

<210> 86  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (7)..(8)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 86  
tttttttttt tttt 14

<210> 87  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide



<400> 87  
aaaaaaaaaaaa aaaa

14

<210> 88  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 88  
aaaaaaaaaaaa aaaa

14

<210> 89  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 89  
tttttttttt tttt

14

<210> 90  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 90  
aaaaaaaaaaaa aaaa

14

<210> 91  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 91  
aaaaaaaaaaaa aaaa

14

<210> 92  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (5)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (11)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 92  
tttttttttt tttt

14

<210> 93  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 93  
aaaaaaaaaaaa aaaa

14

<210> 94  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 94  
aaaaaaaaaa aaaa

14

<210> 95  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 95  
tttttttttt

10

<210> 96  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 96  
aaaaaaaaaa aaaa

14

<210> 97  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 97  
aaaaaaaaaa aaaa

14

<210> 98  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (8)  
<223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 98  
 tttttttttt tttt 14

<210> 99  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 99  
 aaaaaaaaaa aaaa 14

<210> 100  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 100  
 aaaaaaaaaa aaaa 14

<210> 101  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (7)..(8)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 101  
 tttttttttt tttt 14

<210> 102  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 102  
aaaaaaaaaa aaaa

14

<210> 103  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 103  
aaaaaaaaaa aaaa

14

<210> 104  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 104  
tttttttttt tttt

14

<210> 105  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 105  
aaaaaaaaaa aaaa

14

<210> 106  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 106  
aaaaaaaaaa aaaa

14

<210> 107  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>

<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 107  
tttttttttt tttt

14

<210> 108  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 108  
aaaaaaaaaa aaaa

14

<210> 109  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 109  
aaaaaaaaaa aaaa

14

<210> 110  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (5)  
 <223> LNA monomer

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> LNA monomer

<220>  
 <221> modified\_base  
 <222> (9)  
 <223> LNA monomer

<220>  
 <221> modified\_base  
 <222> (11)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 110  
 tttttttttt tttt

14

<210> 111  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 111  
 aaaaaaaaaa aaaa

14

<210> 112  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 112  
 aaaaaaaaaa aaaa

14

<210> 113  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (1)..(13)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 113  
 tttttttttt tttt

14

<210> 114  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 114  
 aaaaaaaaaa aaaa

14

<210> 115  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 115  
 aaaaaaaaaa aaaa

14

<210> 116  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 116  
 aaaaaagaaa aaaa

14



<210> 117  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (8)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 117  
 tttttttttt tttt

14

<210> 118  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 118  
 aaaaaaaaaa aaaa

14

<210> 119  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 119  
 aaaaaaaaaa aaaa

14

<210> 120  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (7)..(8)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 120  
 tttttttttt tttt

14

<210> 121  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 121  
 aaaaaaaaaa aaaa

14

<210> 122  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 122  
 aaaaaaaaaa aaaa

14

<210> 123  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> modified\_base  
 <222> (7)  
 <223> LNA monomer

<220>  
 <221> modified\_base  
 <222> (9)  
 <223> LNA monomer

<220>  
 <223> Description of Artificial Sequence: LNA modified  
 oligonucleotide

<400> 123  
 tttttttttt tttt

14

<210> 124  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 124

aaaaaaaaaa aaaa

14

<210> 125

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 125

aaaaaaaaaa aaaa

14

<210> 126

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<221> modified\_base

<222> (6)..(9)

<223> LNA monomer

<220>

<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 126

tttttttttt tttt

14

<210> 127

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 127

aaaaaaaaaa aaaa

14

<210> 128

<211> 14

<212> DNA

<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 128  
aaaaaaaaaa aaaa

14

<210> 129  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (8)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 129  
tttttttttt tttt

14

<210> 130  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 130  
aaaaaaaaaa aaaa

14

<210> 131  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 131  
aaaaaaaaaa aaaa

14

<210> 132  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (7)..(8)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 132  
tttttttttt tttt

14

<210> 133  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 133  
aaaaaaaaaa aaaa

14

<210> 134  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 134  
aaaaaaaaaa aaaa

14

<210> 135  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 135  
tttttttttt tttt 14

<210> 136  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 136  
aaaaaaaaaa aaaa 14

<210> 137  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 137  
aaaaaaaaaa aaaa 14

<210> 138  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (6)..(9)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 138  
tttttttttt tttt 14

<210> 139  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 139  
aaaaaaaaaaaa aaaa

14

<210> 140  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 140  
aaaaaaaaaaaa aaaa

14

<210> 141  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (5)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (7)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (9)  
<223> LNA monomer

<220>  
<221> modified\_base  
<222> (11)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 141  
tttttttttt tttt

14

<210> 142  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 142  
aaaaaaaaaa aaaa

14

<210> 143  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 143  
aaaaaaaaaa aaaa

14

<210> 144  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> modified\_base  
<222> (1)..(13)  
<223> LNA monomer

<220>  
<223> Description of Artificial Sequence: LNA modified  
oligonucleotide

<400> 144  
tttttttttt tttt

14

<210> 145  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 145  
aaaaaaaaaa aaaa

14

<210> 146  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide



<400> 146  
aaaaaaaaaa aaaa